



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,843	01/28/2005	Zheng Lu	LCS-102/PCT/US	9346
31217	7590	09/10/2007		
LOCTITE CORPORATION 1001 TROUT BROOK CROSSING ROCKY HILL, CT 06067			EXAMINER PENG, KUO LIANG	
			ART UNIT	PAPER NUMBER
			1712	
			MAIL DATE	DELIVERY MODE
			09/10/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/522,843	<b>Applicant(s)</b> LU ET AL.	
	<b>Examiner</b> Kuo-Liang Peng	<b>Art Unit</b> 1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 1/28/05 Prel. Amendment.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-5, 13, 14, 16, 18-20 and 22-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 16, 18-20 and 22-30 is/are rejected.
- 7) ☒ Claim(s) 13, 14 and 29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/28/05</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. The Applicants' preliminary amendment filed January 28, 2005 is acknowledged. Claims 6-12, 15, 17 and 20-21 are deleted. Now, Claims 1-5, 13-14, 16, 18-20 and 22-30 are pending.

#### ***Claim Objections***

2. Claim 29 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

In Claim 29 (line 2), the phrase "within 1-8 hours" does not further limit the subject matter of the previous claim.

#### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3-5, 16, 18-19 and 22-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Yang (US 5 000 861).

For Claims 1, 3, 5 and 18-19, Yang discloses an aqueous emulsion comprising an aminopolysiloxane, a silane and a terminal-hydroxy polysiloxane. (col. 2, lines 50-60) The amount of silane based on the total silicones in the formulation is described in col. 7, lines 44-58 and further exemplified in Example 4. The solid content (primarily the aminopolysiloxane and the terminal-hydroxy polysiloxane) of the emulsion is described in col. 7, lines 13-43. Example 2 illustrates an emulsion where the aminopolysiloxane and the terminal-hydroxy polysiloxane are present in about equal amounts. As such, Yang's amounts of the aminopolysiloxane and the terminal-hydroxy polysiloxane in the emulsion can fall within claimed ranges. The "mold release agent" in the preamble of the instant claim is merely an intended use, and does not carry any weight of patentability. See MPEP 2111.02. Since all the components in the emulsion are neither strong acid nor strong base, the resulting emulsion should have a pH falling within the claimed range. Note that the emulsion is substantially devoid of VOCs and flash point.

For Claim 4, Example 4 exemplifies the amount of silicone actives being 0.4% and 0.75%. Since the silicone actives primarily constitute the nonvolatile

solids in the emulsion, Yang's emulsion does possess the claimed percent total nonvolatile solids.

For Claims 16 and 22-30, since Yang's composition is substantially the same as that of Applicants', it should possess the claimed characteristics /properties.

5. Claim 2 is rejected under 35 U.S.C. 102(b) as being anticipated by Yang as evidenced by Freeman (Silicones, Published for the Plastics Institute, 1962)

Yang discloses an aqueous emulsion, *supra*, which is incorporated herein by reference. Yang further teaches that the aminopolysiloxane can have a viscosity as high as 10,000 cps, i.e., about 10,000 cSt because the density of a polysiloxane is about 1.0. (col. 4, line 50 to col. 5, line 11) Freeman teaches that the relationship between the viscosity ( $\eta$ ) and the degree of polymerization ( $n$ ) can be expressed as  $\log \eta = 0.1 * n^{1/2} + 1.1$  where  $\eta$  is in cSt. (page 27) Thus, the aminopolysiloxane with a viscosity of about 10,000 cSt should have a molecular weight of about 58,000. In addition, Example 1 demonstrates the use of an aminopolysiloxane having a molecular weight falling within the claimed range. Similarly, the hydroxyl-terminated polydimethylsiloxanes recited in Examples 2-4 should possess molecular weights falling within the claimed range.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 28-30 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Martin (US 6 294 007).

Martin discloses a mold release aqueous emulsion comprising a hydrophobic-modified polyorganosiloxane containing hydroxyl groups or alkoxy groups and an aminoorgano polysiloxane. (col. 2, line 58 to col. 3, line 53, col. 4, line 64 to col. 5, line 27 and col. 8, lines 13-25) In a less preferred embodiment, a silanol-terminated polysiloxane can also be present. (col. 2, lines 42-57) The emulsion is devoid of VOCs. Since Martin's emulsion discloses all the limitations of the instant claims except properties or functions, and the examiner cannot determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention but has basis for shifting the

burden of proof to applicant as in *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuo-Liang Peng whose telephone number is (571) 272-1091. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski, can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 1712

klp

August 27, 2007

  
Kuo-Liang Peng  
Primary Examiner  
Art Unit 1712